

Frequently Asked Questions for Net metering Rooftop Solar PV System

1. What is a Solar Rooftop System?

As the name suggests, a solar rooftop system is where the solar panels are installed on the roof of any Residential, Commercial, Institutional or Industrial building.

This can be of two types:

- (i) Grid Connected Rooftop Solar System **with /without** storage facility
- (ii) **Off Grid Connected** Rooftop Solar System with storage facility

2. What is a Solar Rooftop System with Storage facility?

Some Solar rooftop systems that have a battery as storage facility. Such solar systems can “store” electricity in the battery and hence are named so.

3. What is a Grid Connected Solar Rooftop System?

In grid connected rooftop or small Solar Photo Voltaic (SPV) system, the DC power generated from SPV panel is converted to AC power using Power Conditioning Unit (e.g. Inverter) and is fed to the grid either of **400/230** Volt three/single phase line or 33 kV/11kV three phase lines depending on the capacity of the system installed at Residential, Commercial, Institutional or Industrial building and the regulatory framework specified by respective authorities. These systems, generate power during the day time which is utilized fully by powering captive loads and feed excess power to the grid as long as grid is available (for W/O Storage facility). In case, where solar power is not sufficient due to cloud cover etc., the captive loads are served by drawing power from the grid.

4. Where can such plants be installed?

As per the policy, such rooftop systems can be installed at rooftops or/and Open areas on the land, building or infrastructure or part or combination thereof.

5. What is GUJARAT SOLAR POWER POLICY 2015?

Government of Gujarat has announced Gujarat Solar Power Policy on 13-Aug-2015 to facilitate and promote solar power generation. To download the policy, click here:

https://guj-epd.gujarat.gov.in/uploads/Gujarat_Solar_Power_Policy_2015.pdf

6. What is operating period of Gujarat Solar power policy - 2015?

13-Aug-2015 to 31-Mar-2020

7. What is the size of grid connected rooftop solar system?

The rooftop solar systems from minimum 1 kWp upto 1000 kWp or in combination can be set upon the roofs as per GoG-Solar Power Policy -2015.

8. Who all are eligible for this policy?

Eligible Consumer means a consumer of electricity in the area of supply of the distribution licensee, who intends to use a Rooftop Solar PV System, given that such system is self-owned, to offset part or all of the consumer's own electrical requirements.

9. What are the different categories covered in this policy?

- Rooftop PV (Photo Voltaic) System with net metering
 - Residential Or Government Consumers
 - Industrial, Commercial and other consumers
- Solar Project for captive consumption
- Solar Project with sale of power to DISOMs
- Solar Project Under REC mechanism with sale of power to Discom at APPC (Avg. Power Purchase cost)
- Solar Project with sale of power under NSM.
- Solar Project with sale of power to third party under open access.
- Agriculture Solar Pump
- Standalone PV system and home lighting system
- Canal top and canal bank solar PV project
- Technology Demonstration Project.
- Other Scheme.

10. What safety to be ensured /precaution to be adopted by the customer who install grid connected SPG.

It is extremely important that the user organization follows strict safety practices as per the guidelines mentioned in the policy. Failure to do so may result in severe damage to life as property. One key safety practice that has to be followed is in case the grid fails, the solar power has to be stopped immediately feeding to the grid so as to safe-guard any technician while working on the grid for maintenance etc. This feature is termed as '**Islanding Protection**'.

More safety directions are available here:

http://www.cea.nic.in/reports/regulation/distributed_gen.pdf

11. What is the current Policy Guidelines for residential customers?

Government of Gujrat announced further policy in continuation of Solar Policy-2015 as G.R. dated 5th August-2019.

12. What are the features of this new policy?

Please read "Salient Features 2019-20" on this portal

13. Where does one need to submit the fresh Application to install Grid Connected Solar PV System?

- i. Online Applications (for residential): <https://suryagujarat.ahasolar.in/> only through registered Empaneled Vendors.
- ii. Offline Applications (for non-residential), Applicant has to submit a proposal to the State Nodal Agency i.e. Gujarat Energy Development Agency-Gandhinagar.

14. It means that customers have to contact Empaneled Vendors. From where, customer can get the list of Empaneled Vendor to get installation of solar rooftops?

Customers can view the list of Empaneled Vendors on the website of DISCOM.

15. What are the documents to submit with proposal of SPG?

The following documents are mandatorily to be submitted with the application –

- a) Ownership documents of the rooftop solar PV system.
- b) Ownership or legal possession of the premises including the rooftop or terrace on which SPV systems needs to be installed.
- c) Proof of being a consumer of the local DISCOM and premise connected to the DISCOM's Grid
- d) Declaration of request for 1-phase or 3-phase Solar system & declaration of Section under which of the Solar Policy benefit to be availed?
- e) Signed PPA from the consumer

16. How much Solar PV KWp can be installed by the applicant?

The capacity of solar rooftop system equal to or greater than 1 (one) kilowatt DC can be installed irrespective of the sanctioned load of the private residential customers. However, the subsidy shall be limited to maximum capacity of 10 KW.

17. How much subsidy will be provided to residential customers?

Subsidy of 40% shall be available for solar rooftop systems up to 3 KW and 20% for solar rooftop systems beyond 3 KW and up to 10 KW, installed and commissioned by private residential consumers.

18. How much amount to pay the Empaneled Vendor by the private residential customer to install RTSPV system and how customers will get the subsidy?

Solar Project capacity wise rates are discovered and finalized. The details of rates are listed on the portal of DISCOM.

Customers have to pay an amount after deducting of subsidy amount to Empaneled Vendor. Subsidy will be directly given to the Empaneled Vendor through DISCOM and GUVNL-Nodal Agency.

19. What if residential customers who had already installed solar roof top and now they wanted to install more rooftop SPV system with subsidy?

Such customers are also eligible for the subsidy, provided that:

- a) The already commissioned system is of capacity less than 10 KW
- b) The subsidy shall be eligible only for the incremental capacity @ 40 % if the aggregate capacity upon enhancement is not more than 3 KW and @20% if the aggregate capacity of the enhanced system is less than 10 KW.

20. What is net metering?

Conventionally energy meter installed at customer premises register energy consumption in one direction which is energy injected in to the customer system. However, in this case energy which has been exported into the grid also needs to be measured. Hence, bidirectional meter needs to be installed.

With this bidirectional meter, energy will be measured in both the direction (a) Energy injected in to customer system and (b) Excess energy (after captive consumption) exported to the TPL grid. Accordingly, net units (a-b) only would be billed to the consumer. Such metering is called NET metering.

21. What is banking of units generated from Solar system?

Units generated from Solar system, if not utilized then will be exported to TPL grid and recorded in bidirectional meter. Customer can utilize those units any point of time during same billing month. This mechanism is called "banking" of the excess units generated.

22. What Rate TPL will purchase excess unit generated from solar system?

In the event the electricity injected exceeds the electricity consumed during the billing period, such excess injected electricity after adjustment of consumption shall be purchased by the concerned Distribution Licensee:

- a) In case of private residential customers it shall be purchased at the rate of **Rs.2.25 per unit**.
- b) For other (Non-Residential) customers; at the Average Pooled Power Purchase Cost (APPC) or at the lowest rate discovered through competitive bidding process anywhere in India and available on 1st day of financial year for the project commissioned during April to September and available on 1st day of October for projects commissioned during October to march, whichever is lower. This rate shall remain fixed for the entire period of this

agreement i.e. 25 years.

18. What is APPCrate

“Average Power Purchase Cost” (APPC) means the Weighted Average Pooled Price at which the distribution licensee has purchased the electricity including cost of self-generation, if any, in the previous year from all the energy suppliers on long-term, medium-term and short-term basis, but excluding energy purchased from renewable energy sources.

19. At present, what is lowest bidding rate discovered for non-residential customers?

The lowest rate is Rs.2.55 per unit as on 01.04.2019. These rates shall be applicable for purchase of surplus power from solar projects commissioned during April-19 to September-2019 for non-residential customers and shall be applicable for the term of wheeling agreement of 25 years.

20. What is procedure to be followed by Private Residential customers to complete the net connectivity?

- ☐ Empaneled Vendor on Behalf of customer Submits online application on GUVNL unified Portal.
- ☐ Torrent Power limited will confirm the documents submitted on line as OK and will divert the vendor for the payment of Solar Estimate on TPL portal.
- ☐ On payment of above charges, TPL will registers the application at Unified Portal and at Torrent Power Office. TPL will issue Registration letter to the customer and copy will be posted to Empaneled Vendor.
- ☐ Thereafter, Feasibility Approval will be done by TPL team and declares on GUVNL portal
- ☐ Empaneled vendor will submit connectivity agreement (PPA), documents attached on portal , cancelled cheque at TPL office
- ☐ Terrace rights and CEI drawing approval is also to be submitted where required.
- ☐ Solar Installation to be completed by Solar Consultant
- ☐ Meter Box installation be carried out by TPL
- ☐ CEI Inspection report/Self Certification to be submitted by Empaneled vendor at TPL office
- ☐ Installation of I-E meter & Solar/RPO meter by TPL team
- ☐ Informing GUVNL after installing solar/RPO meter online by TPL

21. Who will provide Bidirectional meter/Net meter and Solar meter?

🔗 For residential

TPL will provide Net (Import/Export) meter. The cost of the solar meter will be borne by the Empaneled Vendor through given estimate.

🔗 For non-residential

TPL will provide Net meter, solar meter and Solar check meter (where applicable) and the cost of the same will be borne by the customer.

22. Can customer purchase his own Net meter, Solar meter and Solar check meter (applicable to above 20 KWp solar system)?

Yes, Customer has option of purchasing his own meter as per specification provided by us. Please visit our customer portal <https://connect.torrentpower.com> and visit solar section to get specification. Also, customer's own meters require to be tested at our meter laboratory for the accuracy and other parameter testing.